

Stories that show how to study and how to learn: an experience in the Portuguese school system

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Abstract

Within the framework of new study programs for Portuguese mandatory education, we carried out a research program at the school *Nossa Senhora do Rosário*, under the coordination of this article's first author. Self-regulation of learning is the conceptual framework for the project, called “(Des)venturas do Testas” [“Testas's (Mis)adventures”]. With our basis in the sociocognitive theoretical framework, we present and analyze the model of cyclical phases in self-regulation of learning, the nature of learning strategies and some implications for educational practice. The innovative nature of this proposal lies in the use of “stories” as a means to convey and discuss study strategies, brought to light by a familiar model. We think that the adventures and *(Mis)adventures* of Testas, a student like any other, allow pupils to easily identify with proposed solutions that are discussed, as well as to transfer competencies discussed in the classroom to other areas of school and of their own life.

Keywords: independent study, self-regulated learning, learning strategies, narrative.

Introduction

"Teacher, you tell us stories but you don't explain what they mean..."
"Well, let me offer you an apple. To make it easier I'll peel it for you." (The student thanks him.)
"Shall I cut it into small pieces?"
"That's very nice, but ..."
"Here, let me chew it for you before you eat it ..."
"Teacher, I wouldn't like that," intervened the young person.
"Well, explaining every story to you would be like me chewing your apple."
(Adapted from Tibetan wisdom)

The curriculum for mandatory education in Portugal extends from grade 1 (6-year-olds) through grade 9 (14-year-olds, approximately). In the 2003-4 schoolyear, the articles comprising the most recent curriculum reorganization, initiated in 2001, will finish being implemented throughout the school system. In the preamble to Law 6/2001 (see Abrantes, 1999), where the reorganization is laid out, we can read that its strategic objective is "to guarantee an educational base for everyone, defending the principle of lifelong education and training." This law sustains that "it is necessary to promote a gradual change in the practices of curriculum administration. This reorganization's objective is to improve the educational response to typical problems from a diversity of school contexts and to assure that everyone learns more and more meaningfully" (Abrantes, 1999). One of the proposals from this new curriculum development consists of three new non-disciplinary curriculum areas where the implementation of cross-disciplinary competencies, put into place by the Portuguese national plan of studies, is spelled out. These three new curriculum areas are called *Estudo Acompanhado* (Assisted Study), *Área de Formação Cívica* (Citizenship Training Area) and *Área de Projecto* (Project Area). Each of these new areas is non-elective with 90 minutes per week in the curriculum of 5th to 9th grades. In the First Cycle of Portuguese *Ensino Básico*, corresponding to primary grades 1 through 4 (6- to 9-year-olds), these areas of the curriculum are not rigidly formatted into the students' schedule, unlike in other educational cycles. Evaluation of work performed in these new areas, due to its promotional nature (i.e. developmental and not remedial), takes on a qualitative format.

In this article we focus on aspects pertaining to the curriculum area of "assisted study". In Law 6/2001 it is stated that "Assisted Learning" addresses the acquisition of competencies which allow students to adopt study and work methods and which develop attitudes and abilities that favor increasing autonomy in the accomplishment of one's learning (Article 5, section 3, paragraph b).

The Mis(adventures) of Testas Project was carried out at the school of *Nossa Senhora do Rosario* (Oporto, Portugal), with a group of teachers and psychologists in the application of Assisted Study. This educational tool represents a real opportunity to link academic research and educational practice. As a fruit of this exchange, this project for developing study competencies is anchored both in a solid theoretical framework and also in an understanding of school realities. The multi-disciplinary team, including teachers, psychologists, school principals and university researchers, intends with this "Assisted Learning" proposal to offer students an effective opportunity to learn to learn, by means of promoting or developing self-regulation competencies.

Above all, this is a project for promoting strategic learning. Self-regulation of learning refers to the degree to which students commit themselves metacognitively, motivationally and behaviorally in their own learning process (Rosário, 2002a; Schunk & Zimmerman, 1994). Students can self-regulate different dimensions of learning, for example, their motives for learning, the learning methods and strategies they use, and the social and environmental resources in their surroundings (González-Pumariega, Núñez, Cabanach & Valle, 2002). Thus we refer to qualitative and quantitative aspects of the teaching-learning process, including strategies that students use, frequency and skill in their utilization. The pillars of the self-regulation process are choice and control (Schunk & Zimmerman, 1994, 1996). And the teachers' principal task is "to get students to engage in learning activities that are likely to result in their achieving those outcomes. It is helpful to remember that what the student does is actually more important in determining what is learned than what the teacher does" (Shuell, 1986, p.429).

With our anchor in this theoretical framework, we defend that promoting self-regulatory competencies for classroom use should not be confined to manipulating a set of isolated and de-contextualized learning strategies, but rather to discussing a form of reasoning that prepares and guides the students' entire work, strengthening it qualitatively. Students cannot self-regulate their learning unless they are provided opportunities to do so, and they can control certain essential dimensions of their learning. The importance of self-regulation of learning is underscored by research which repeatedly suggests that students who self-regulate their learning are mentally active during learning, exercising control over the establishment and pursuit of established objectives (Weinstein, 1994; Zimmerman, 1998, 2000). The project we propose for promoting self-regulated learning is based on the conviction that all stu-

dents are able to learn and self-regulate motivation and learning, whenever they decide to learn and take control of learning tasks.

Nonetheless, many students in our schools show dysfunctions in their self-regulatory processing, in the motivational domain (for example, avoiding certain tasks or giving up before reaching the conclusion), in methods they use (for example, inadequate use of learning strategies) or in resources used (for example, not asking for help from parents or classmates when they need it). These types of problems tend to arise when students do not know about self-regulated learning processes or they use "the same old" methods for addressing school tasks. On the other hand, schools likewise do not provide the necessary self-regulatory training for teachers and students, whether due to lack of time, space, teacher training, etc. (Rosário, 2001a, 2002a, 2003).

The intervention program we present here, a collection of material titled *(Des)venturas do Testas*, pertains to the area of developing competencies for self-regulation of the learning process, and is composed of a narrative book with stories where the self-regulation process is made explicit, to be worked through during grades 5 through 9 in the Portuguese school system. In this program, Testas, the hero, tells his friends about his successes, failures, adventures and misadventures in this process of study and learning (Rosário, 2002b,c,d). This project is inserted in a framework of participative educational innovation (Randi & Corno, 2000; Rosário, 2002a), which we characterize as a process where teachers and researchers work together, taking advantage of the synergies of the theoretical/practical connection in order to build instructional tools.

(Des)venturas do Testas aims not to be "just another project", conceived in an office far from all classroom reality, and thus out of synch with the real needs of educational intervention. This program is the product of a (co)construction in the exercise of educational innovation, for this reason adopting a well-defined environmentalist framework. This curricular tool rests on the conviction that self-regulated learning can be promoted through modeling and the experiencing of multiple opportunities for developing independent learning (Pintrich, 2000; Rosário, 2003). Our main objective was to create, in the school space, a learning environment that provides involvement from parents, teachers and students in the construction of a script for self-regulated learning. We have tried to avoid decontextualization of concrete learning experiences, severely sanctioned in the literature as a methodology that not only does

not promote transfer of knowledge and competencies to other educational settings, but furthermore encourages students to think that learning strategies are a "kit" of tactics available to use interchangeably among diverse learning tasks.

(Des)venturas do Testas interweaves stories in an intimistic, narrative discourse where an ordinary student describes and reflects on his concrete learning experiences. This way his classmates/readers can experience learning vicariously through the narrative and inductively learn a self-regulated model for taking on learning experiences. In the different texts from the different (mis)adventures, learning strategies are disseminated according to the self-regulation model proposed by the sociocognitive framework (Zimmerman & Martínez-Pons, 1986, 1988).

Our project in working with and for the students suggests the inverse task: to identify learning strategies underlying the discourse, constructing the history of self-regulation itself, based on Testas' narrative. The story we offer, therefore, is not a "well-rounded" final product. On the contrary, it appears as a starting point for the personal construction of self-regulation itineraries, on the part of parents, teachers and students.

In accordance with Bruner (1990), these narratives are not seeking to make better readers of the students, but rather "better authors". Nonetheless, these purposes obviously do not exclude one another. In order for students to increase their self-regulation ability, we must increase their reading and reflexion competencies. For this reason, we propose using the "Testas" stories in this intervention program as a window through which moments of self-regulation can be "constructed".

The narratives unfold in harmony with the sociocognitive theoretical framework (Pintrich, 2000; Schunk, 1996; Schunk & Zimmerman, 1998; Zimmerman, 1998, 2000). Some aspects of the narratives illustrate this intention of inviting the student to construct his own personal plan. For example, the non-formatted nature of the sessions, without rigid time limits or rule-regulated activities leads to the construction of a self-regulated "personal plan" (e.g., Rosário, 2001b, 2002a). Among the key elements of work presented in the theoretical book which underlies this project (Rosário, 2002; 2003), a generous set of suggestions for working on self-regulation competencies are offered, leaving educators the choice of activities appropriate to each student or class group.

Self-regulation Model

Barry Zimmerman and collaborators presented an explanatory model of self-regulated learning in 1998, reiterating it in 2000. The intervention we describe, though anchored in the sociocognitive framework (Zimmerman, 1998, 2000), presents a more detailed cyclical model: Planning, Execution and Evaluation of the task (Rosário, 2002a), as seen in Figure 1.

The planning phase takes place when students analyze the specific learning task. This analysis implies studying one's personal and environmental resources for taking on the specific task, the establishment of specific objectives, and of a plan for reaching them. The execution phase refers to applying the strategy to reach the goal. Students use an organized set of learning strategies and monitor their effectiveness in order to reach the established goal. Finally, the evaluation phase takes place when the student analyzes the relation between the learning product and the previously established goal. The essence of this phase in the self-regulation process is not just to identify the differences between the learning product and the learning goal, but rather to reflect on what strategies could be used to reduce this distance.

The nature of this model suggests the analysis of each one of the phases described, and their respective tasks, according to the cyclical plan that encompasses the whole. Thus we can identify a two-fold reasoning that undergirds the structure of the self-regulation curriculum tool that we propose (Figure 1). First, the structure of the narratives for each schoolyear is organized according to the self-regulatory cycle already described: planning phase, execution phase, and finally, evaluation phase, which due to the cyclical nature of the project, is a precursor to the planning phase. The self-regulation cycle is assured in this fashion. Thus, in each of the texts corresponding to the different years of the intervention, there are chapters which prioritize each one of the phases (though they work on the other two phases as well). For example, in fifth grade we highlight the planning phase, while in sixth grade greater weight is given to the execution phase, and in 7th grade, to evaluation. In the 8th grade notebook, although execution is the first priority, the intention is also to make the dynamic of self-regulation less and less visible (make it more implicit), trusting that the student will become more and more spontaneous in both its classroom use as well as use at home (Rosário, 2003).

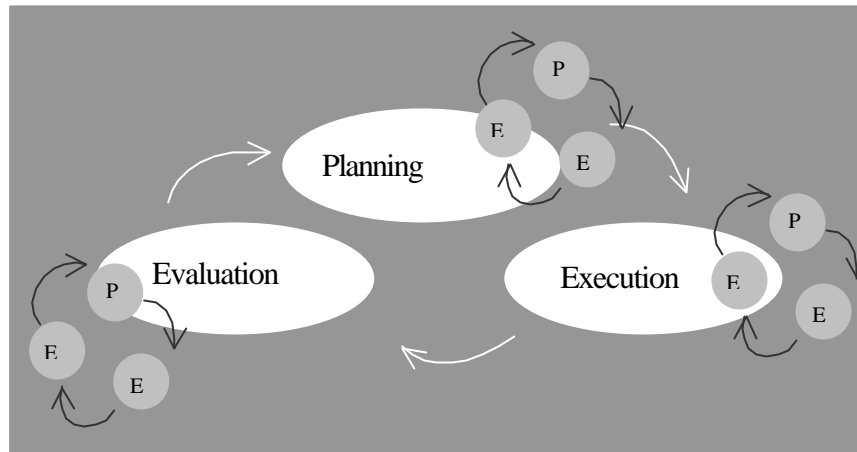


Figure 1. PLEE Model, showing the two-fold reasoning that provides the organization behind this tool for promoting self-regulation in the classroom.

The second principal axis of this intervention refers to the fact that the self-regulatory cyclical process exists in each of the phases and their activities. For example, in the task planning phase, one also plans, executes and evaluates. We think that this logical choice reinforces self-regulatory synergy, allowing educators and students to experience the self-regulation process as a whole, in any one of its phases or respective activities. Despite the fact that each book devotes specific chapters to development and discussion of topics related to one of the phases, all chapters are organized for discussion of the self-regulation process as a whole. This two-fold reasoning must be respected and adopted by the educators who work with this instrument, in order to guarantee the very nature and coherence of self-regulated learning when promoting it (Rosário, 2002a).

(Des)venturas do Testas: Project Architecture

The intervention we propose is not put together as a study competencies program. There is no structure of sessions distributed over the course of the year, nor are there exact amounts of time set forth in order to carry out previously-stipulated activities. On the contrary, the *(Des)venturas do Testas* project is a tool for working on self-regulatory competencies in the classroom. Despite there being a solid plan that organizes the project (Rosário, 2002), it is adaptable to the different rates of learning and needs of the readers/authors. Self-regulation of learning is an intentional process: students must learn to use learning strategies intentionally and autonomously in their personal work. Some strategies are directed toward organizing information processing, while others help with time management or management

of emotions, etc. (Cabanach, Valle, Rodríguez & Piñeiro, 2002; Rodríguez, Cabanach, & Piñeiro, 2002; Rosário, 2001a,b, 2002, 2003; Schunk, 1998; Zimmerman, 1998, 2000). Some strategies are specific to the task while others are more general. However, regardless of the variety of learning strategies, they all share one set of characteristics. First, strategies constitute deliberate actions toward reaching specific objectives. Second, they involve a personal response to a given problem, a process that implies personal involvement and control of the tasks to be performed, more than just using a predefined strategic plan to take on learning tasks. Third, strategies are applied to the tasks selectively and flexibly, implying both cognitive as well as motivational resources. Finally, training in learning strategies should take place in different types of school tasks, in order to facilitate their transfer. As we have already indicated, in the sociocognitive model, self-regulation is not considered a psychological trait, but rather a competency in very close relationship with a specific context (Schunk & Zimmerman, 1994). This is corroborated by the fact that learners are not involved in self-regulating behavior in a similar fashion in all contexts and learning tasks. Despite the universality of some self-regulatory processes—for example, establishment of objectives—students should learn to effectively adapt their learning processes to different learning domains. Recall that the axes of the self-regulatory process are choice and control.

This methodology proposed for use in the “Assisted Study” subject, but also at home, constitutes an innovation both for students as well as for educators. For this reason, it is important to inform parents and teachers about the typology of learning strategies suggested in *(Des)venturas do Testas*, and thus promote their ongoing development during completion of assignments.

The teacher/educator's explanation, the class discussion and the accomplishment of activities at school or at home, should keep pace with and follow the direction of the student's reflections thus far attained. We suggest keeping a log and summaries of the main features discussed in work sessions, in order that the students can later reflect about what they have learned. Workbooks from the *(Des)venturas do Testas* collection can be read and discussed, at school and at home, respecting the nature of the self-regulated learning process already described: each activity/task/problem/story should be planned, executed and evaluated (Rosário, 2002a, b, c, d). Assimilating these three steps will help students and educators to reflect on their participation in the process and to rethink their strategic options with regard to the different learning tasks. Promoting self-regulatory competencies is crucial for students'

growth. If they know which learning strategies to use in their study, how and when, this behavioral repertoire will have results in the quality of their learning and personal well-being, in addition to increasing their levels of academic self-efficacy and their self-esteem (Valle, Cabanach, Núñez, González-Pienda, Rodríguez & Piñeiro, 2003).

Conclusion

Learning strategies need to be learned and practiced within a context, by following a "more demanding" routine than administering isolated worksheets. The focus of an intervention should not be compensation for a deficit, based on the assumption that students' learning strategies are inadequate and that as a consequence they need "remedial" intervention. On the contrary, data from reviews of the literature in the field (Simpson *et al.*, 1997) suggest that the teaching and practice of self-regulated learning strategies should follow a logic that involves the pupil in the sequence of "Choose – control – reflect".

Students need to be familiar with self-regulated learning strategies as fully as possible, be familiar with their application in different learning situations and tasks, but also when to apply each one. The teaching and practice of learning strategies should not be approached as a closed-ended task in a specific course or curriculum area, but rather as a responsibility of all the teachers of a given group of pupils. When there is an absence of referral and strategic work does not echo across the different learning contexts, this decreases the effectiveness of learnings achieved and their transfer to other domains. The work profile that we propose for "Assisted Study" is in line with our conviction that it is necessary and urgent to train teachers in valid instructional strategies for eliciting and consolidating in students the ability to self-regulate their own learning process. And this, not only from the remedial perspective or in compensation for deficits, with occasional training activities, but also in a preventive line, for example, including this topic in teachers' initial training or in their ongoing training and development. Another aspect that gives structure to this non-disciplinary curriculum area pertains to developing its connections across all parts of education which are involved. This synergy could be strengthened, among other alternatives, through suggestions of school tasks to be carried out in out-of-school hours.

Following this thread, we are critical of teaching learning strategies separately from the study plan (although we recognize its usefulness in occasional cases of learning disabil-

ity). On the contrary, we defend that the development of self-regulation competencies in students is dependent on concrete learning activities carried out in specific learning contexts. The curriculum format of "Assisted Study" might be a first step in exemplifying curriculum integration in teaching self-regulation strategies.

Therefore, what do we learn when we learn? Let us recall an old story that quite graphically illustrates the educational challenge that all of us as teachers are facing: teaching our students to think. There was once a student who could never become a good mathematician because he "believed blindly" in answers in the back of his book, and though it may seem paradoxical, the answers were correct. We hope that *(Des)venturas do Testas* may constitute an opportunity for promoting self-regulation in the classroom and at home, implicating students, teachers and parents.

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